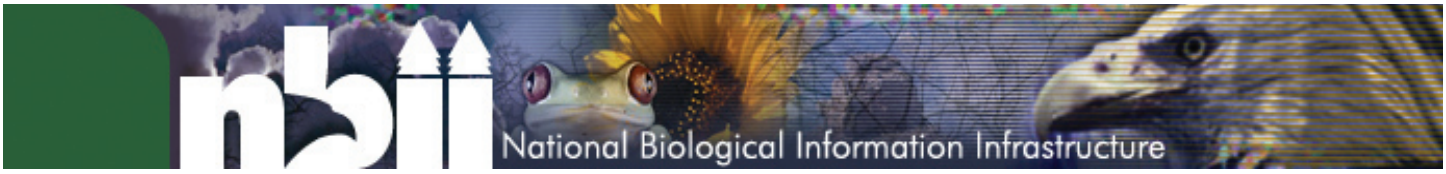



# A National Biological Information Infrastructure Overview

The National Biological Information Infrastructure (NBII) <www.nbii.gov> is a broad, collaborative program to provide increased access to data and information on the nation's biological resources.

Nodes are interconnected entry points that, taken together, are forming the NBII. The establishment of these nodes is helping the NBII provide a vast community of users with rapid access to information on the nation's biological resources.

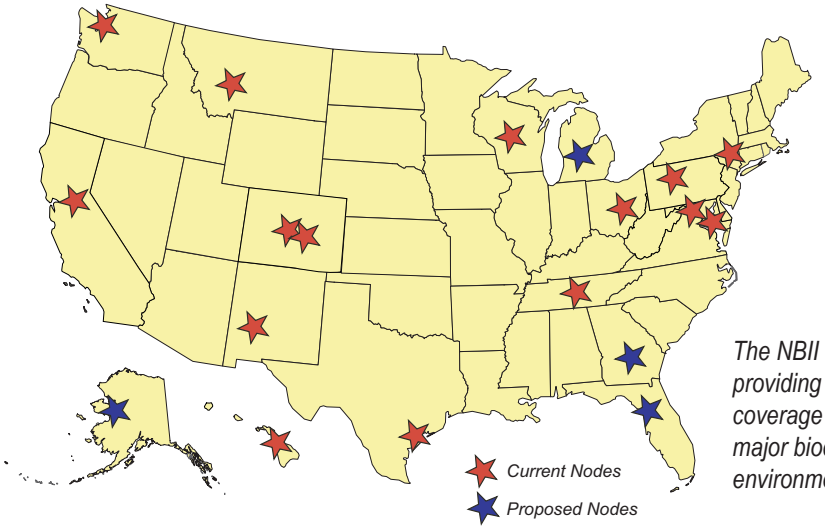
## A Closer Look at the NBII and NBII Nodes

The NBII Program was created in 1993 based on the recommendation of a special panel convened by the National Research Council to examine critical national biological resource issues.

In 1998, the need for the NBII was reaffirmed by a team of internationally renowned scientists (including a Nobel prize winner), who also recommended the creation of NBII "nodes" as focal points for various biological and regional issues. Today, work on the nodes is underway, in collaboration with partners from every sector of society. There are three types of nodes:

*Regional* – Have a geographic orientation and represent a regional approach to local data issues, data collectors, and owners.

*Thematic* – Focus on a particular biological issue, such as bird conservation, providing the support and infrastructure to help address these issues. Such issues often cut across multiple geographic areas.




*The NBII nodes are providing national coverage on a range of major biodiversity and environmental issues.*

*Infrastructure* – Devoted to issues such as the creation, adoption, and implementation of standards through the development of common tool suites, hardware and software protocols, and geospatial technologies to achieve interoperability and transparent retrieval across the entire NBII network.

The NBII Program initiated its node structure in FY2001 and continues to develop these as well as to begin new prototypes. The initial 10 nodes as well as more recently added nodes are described below and on the back of this sheet. Current nodes are designated by the red stars on the map above. Pending new funding, several new nodes are planned, shown in blue stars on the map:

- Southeast-Caribbean (FL) - To link databases from the Southeast United States and Caribbean, and build applications to highlight issues including coral reef decline, coastal and upland development effects on ecosystems, Everglades restoration, and coastal erosion;
- Alaska (AK) - Devoted to the wildlife and natural resource issues of Alaska;
- Amphibian Decline & Deformity (GA) - To address the decline and deformities of amphibians as sentinel species; and
- Great Lakes (MI) - To integrate data and projects on Great Lakes aquatic resources into a Web-based data and tool resource.

The NBII National Program Office is located in the U.S. Geological Survey (USGS), the nation's principal natural science agency.

## For More Information

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## NBII Node Overview

| | State(s) | Partner(s) | Purpose: |
|---|---|---|---|
| Regional | *California Information Node*<br>California<br>Node Manager: Jennifer Pollock<br>Phone: 303-202-4260 | Univ. of California at Davis | Support information systems addressing interagency biodiversity and watershed assessments in California, the Pacific Coast, and desert ecosystems. |
| | *Central Southwest/Gulf Coast Information Node*<br>Texas and Louisiana<br>Node Manager: Dan Phillips<br>Phone: 703-648-4337 | Houston Advanced Research Center, USGS National Wetlands Research Center | Address the biodiversity aspects of sustainable development issues within the Central Southwest and Gulf Coast through research into the applications of new spatial digital data analysis and visualization technologies. |

*(over, please)*

# NBII Node Overview

| | State(s) | Partner(s) | Purpose: |
|---|---|---|---|
| Regional | *Mid-Atlantic Information Node*<br>Virginia<br>Node Manager: Gabrielle Canonico<br>Phone: 703-648-4073 | Fish and Wildlife Information Exchange | Provide online access to urban biodiversity information in the Metropolitan Washington, DC area; will expand to other regional issues. |
| | *Mountain Prairie Information Node*<br>Montana<br>Node Manager: Jennifer Pollock<br>Phone: 303-202-4260 | Montana State University, USGS Northern Rocky Mountain Science Center, U.S. Forest Service | Support natural resource management decisions by providing scientific information about wildlife and its relationship to habitat, human activities, and ecosystem processes in the Greater Yellowstone Area. |
| | *Northeast Information Node*<br>New York<br>Node Manager: Marcia McNiff<br>Phone: 703-648-4078 | Center for International Earth Science Information Network | Provide databases for urban ecology, investigating the cause and effect of invasive species, and tracking the movement of disease-causing agents. |
| | *Pacific Basin Information Node*<br>Hawaii<br>Node Manager: Mark Fornwall<br>Phone: 808-984-3724 | University of Hawaii, The Nature Conservancy, Bishop Museum, USGS Pacific Island Ecosystems Research Center | Address invasive species and endangered species issues within the islands and Pacific Rim. Enhance resource data delivery and imaging to federal and state land management agencies and state planning agencies. |
| | *Pacific Northwest Information Node*<br>Washington and Oregon<br>Node Manager: Jennifer Pollock<br>Phone: 303-202-4260 | University of Washington, USGS Forest and Rangeland Ecosystem Science Center | Offer information to evaluate strategies to stem the decline of salmon in the Pacific Northwest as well as the management of the region's forest ecosystems. |
| | *Southern Appalachian Information Node*<br>Tennessee<br>Node Manager: Jean Freeney<br>Phone: 865-576-7044 | Univ. of Tennessee, Oak Ridge National Lab, Information International Associates | Develop regionally-oriented information content and global thematic focus on invasive species. Take a lead in information analysis and evaluation in the context of biodiversity and ecosystems informatics. |
| | *Southwest Information Node*<br>New Mexico<br>Node Manager: Julie Prior-Magee<br>Phone: 505-646-1084 | Univ. of New Mexico, New Mexico State University, USGS Fort Collins Science Center | Focuses on issues relevant to the region, such as desert ecosytems. |
| Thematic | *Bird Conservation Node*<br>Maryland<br>Node Manager: Elizabeth Martin<br>Phone: 352-846-0630 | U.S. Fish and Wildlife Service, USGS Patuxent Wildlife Research Center | Provide a location for the coordination, management, and dissemination of data and information related to the conservation and management of North American birds. |
| | *Fisheries and Aquatic Resources Node*<br>Pennsylvania<br>Node Manager: Robert Worrest<br>Phone: 703-648-4074 | USGS Wellsboro R&D Lab, Penn State University | Provide fisheries information in a single location for everything from the latest research ... to real-time streamflow data ... to fishing statistics and species profiles. |
| | *Invasive Species Information Node*<br>Colorado<br>Node Manager: Annie Simpson<br>703-648-4281 | National Institute of Invasive Species Science | Integrate invasive species data at a national level, and support real-time and predictive modeling, early warning, and species identification. |
| | *Wildlife Disease Information Node*<br>Wisconsin<br>Node Manager: Robert Worrest<br>Phone: 703-648-4074 | USGS National Wildlife Health Center | Develop collaborative national database of wildlife mortality events to facilitate the tracking and study of emerging wildlife diseases such as West Nile virus and Chronic Wasting Disease. |
| Infrastructure | *Knowledge Integration Node*<br>Ohio and Maryland<br>Node Manager: Mike Frame<br>Phone: 865-576-3605 | Cambridge Scientific Abstracts (CSA), USGS Center for Biological Informatics | Provide technology and information science capabilities, including knowledge integration and engineering, information gateway expertise, and education/communication offerings aligned with the needs of targeted constituencies. |
| | *Network Standards and Technology Node*<br>Colorado<br>Node Manager: Mike Frame<br>Phone: 865-576-3605 | USGS Center for Biological Informatics | Provide an integrating function for NBII enterprise that will offer a mechanism to address user accessibility, Internet sociology, and enterprise-wide user specification and evaluation activities. |